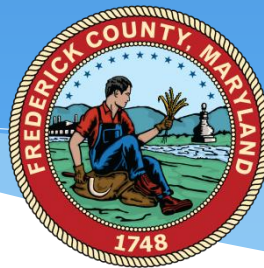


# Frederick Regional Waste-to-Energy (WTE) Facility

## Candidates' Information Briefing

July 15, 2014



# Brief History WTE of Project

- \* April 2005, Frederick County completes a study of the County's long-term waste disposal options.
- \* Study concluded that: A 1,500 TPD regional WTE facility was projected to result in the lowest net present value cost to the County over the 30 year planning period evaluated.
- \* Carroll County was also considering the development of a WTE as a part of its long-term waste management strategy.

# Brief History WTE of Project

- \* Both the Frederick and Carroll County Commissioners adopted formal Resolutions directing their staff and the Northeast Maryland Waste Disposal Authority (NMWDA) to develop a request for full service proposals for the construction of either local (County) or a regional (Multi County) Waste To Energy Facility.

# Brief History WTE of Project

- \* Subsequently the Northeast Maryland Waste Disposal Authority (NMWDA), which both Frederick & Carroll County are members, completed a Design, Build, Operate (DBO) procurement for WTE facilities based on the following size plants:
  - 600 tons per day facility for Carroll County
  - 900 tons per day facility for Frederick County
  - 1500 tons per day regional facility that would serve both Counties

(The Authority began the procurement process in 2006.)

# Brief History WTE of Project

- \* After receiving the results of the WTE full service proposals, the Frederick and Carroll County Commissioners convened a joint meeting to consider a Regional Frederick/Carroll WTE project.
- \* The two BOCCs, after a protracted review of the WTE project, entered into agreements with the NMWDA to develop a Regional WTE Facility in Frederick County.

# WTE Project

## Local (County) Approvals

- \* **July 2009** - Project agreements between Counties and Authority executed.
- \* **July 2010** - Frederick County approves lease for project at the McKinney Industrial Center site.
- \* **September 2010** - Frederick County Solid Waste Management Plan amended to include waste-to-energy facility.
- \* **September 2011** - Frederick County Planning Commission site plan review for WTE at McKinney site completed.

# WTE Facility Project (State and Federal) Approvals

1. Permit To Construct WTE Facility
2. New Source review approval (NSP)
3. Prevention of Significant Deterioration (PSD)
4. Refuse Disposal Permit
5. Wastewater Discharge Permit (NPDES)

# Permits Received (February 21, 2014)

KEEP PERMIT AT SITE CONTROL NO. B- 04222

*State of Maryland*

Martin O'Malley Governor Robert M. Summers, Ph.D. Secretary

DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration  
1800 Washington Boulevard, Suite 720  
Baltimore, MD 21230

☒ Construction Permit ☐ Operating Permit

PERMIT NO. 021-0692-2-0069 and 021-0692-9-0130 DATE ISSUED February 21, 2014  
In accordance with COMAR 26.11.02.04B

PERMIT FEE (N/A - Included w PSD fee) EXPIRATION DATE COMAR 26.11.02.04B

LEGAL OWNER & ADDRESS SITE  
Northeast Maryland Waste Disposal Authority 4549 Metropolitan Court  
100 South Charles Street, Tower II - Suite 402 Frederick, MD 21701  
Baltimore, MD 21201  
Attn: Chris Skaggs, Executive Director

SOURCE DESCRIPTION  
This permit authorizes the installation of a recoverable waste to energy facility, consisting of two (2) non-hazardous municipal waste incinerators rated at 750 tons per day, each, associated support and air pollution control equipment, and one (1) 300 brake-horsepower (bhp) emergency fire pump diesel engine to power a Greener pump.

This source  
Program Manager

KEEP PERMIT AT SITE CONTROL NO. B- 04229

*State of Maryland*

Martin O'Malley Governor Robert M. Summers, Ph.D. Secretary

DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration  
1800 Washington Boulevard, Suite 720  
Baltimore, MD 21230

☒ NA-SSR Approval ☐ Part 70 Operating Permit

PERMIT NO. NSR - 2014-01 DATE ISSUED February 21, 2014  
In accordance with COMAR 26.11.02.04B

PERMIT FEE (N/A - Included w PSD fee) EXPIRATION DATE COMAR 26.11.02.04B

LEGAL OWNER & ADDRESS SITE  
Northeast Maryland Waste Disposal Authority 4549 Metropolitan Court  
100 South Charles Street, Tower II - Suite 402 Frederick, MD 21701  
Baltimore, MD 21201  
Attn: Chris Skaggs, Executive Director

SOURCE DESCRIPTION  
Installation of a nonwaste waste to energy facility consisting of two (2) non-hazardous municipal waste incinerators rated at 750 tons per day, each, and one (1) 300 brake-horsepower (bhp) emergency fire pump diesel engine to power a Greener pump.

KEEP PERMIT AT SITE CONTROL NO. B- 04228

*State of Maryland*

Martin O'Malley Governor Robert M. Summers, Ph.D. Secretary

DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration  
1800 Washington Boulevard, Suite 720  
Baltimore, MD 21230

☒ PSD Approval ☐ Part 70 Operating Permit

PERMIT NO. PSD - 2014-01 DATE ISSUED February 21, 2014  
In accordance with COMAR 26.11.02.04B

PERMIT FEE \$20,200 EXPIRATION DATE COMAR 26.11.02.04B

LEGAL OWNER & ADDRESS SITE  
Northeast Maryland Waste Disposal Authority 4549 Metropolitan Court  
100 South Charles Street, Tower II - Suite 402 Frederick, MD 21701  
Baltimore, MD 21201  
Attn: Chris Skaggs, Executive Director

SOURCE DESCRIPTION  
Installation of a nonwaste waste to energy facility, consisting of two (2) non-hazardous municipal waste incinerators rated at 750 tons per day, each, associated support and air pollution control equipment, and one (1) 300 brake-horsepower (bhp) emergency fire pump diesel engine to power a Greener pump.

Additional description on the attached pages.  
Page 1 of 17  
[Signature]  
Director, Air and Radiation Management Administration

(NOT TRANSPARENT)

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land Management Administration  
Solid Waste Program  
1800 Washington Boulevard, Suite 605, Baltimore, Maryland 21230-1719

MDE

Robert M. Summers, Ph.D. Secretary

**Refuse Disposal Permit**  
**No. 2011-WTE-0649**

ISSUE DATE: February 21, 2014 EXPIRATION DATE: February 20, 2019

Issued to: Northeast Maryland Waste Disposal Authority

Authorizing: The construction and operation of the Frederick/Carroll County Renewable Waste-To-Energy Facility

Located at: 4549 Metropolitan Court, Frederick, Frederick County, Maryland 21701.

This permit is issued pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland, and regulations promulgated thereunder, and is subject to the attached terms and conditions, and compliance with all applicable laws and regulations.

Edward M. Dexter, Administrator Solid Waste Program Horacio Tablada, Director Land Management Administration

Page 1

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore MD 21230  
410-537-3000 • 1-800-633-6101 • www.mde.maryland.gov

Martin O'Malley Governor Robert M. Summers, Ph.D. Secretary  
Anthony G. Brown Lieutenant Governor

STATE DISCHARGE PERMIT NUMBER 11-DP-3749 NPDES PERMIT NUMBER MD0071226

EFFECTIVE DATE February 21, 2014 EXPIRATION DATE February 20, 2019

MODIFICATION DATE N/A REAPPLICATION DATE February 20, 2018

TO DISCHARGE FROM the Frederick/Carroll County Renewable Waste to Energy Facility

LOCATED AT 4548 Metropolitan Court, Frederick, Frederick County, Maryland 21701

VIA OUTFALL 001 as identified and described herein and from facility areas identified in the storm water pollution prevention plan referenced herein

TO the Potomac and Monocacy rivers which are protected for (1) Use (P) water contact recreation, fishing, aquatic life, wildlife and public water supply in accordance with the following special and general conditions and maps made a part hereof.



# Facility Overview

- \* Located in Frederick County's McKinney Industrial Park adjacent to the County's Ballenger-McKinney Wastewater Treatment Plant.
- \* Facility would process Municipal Solid Waste, Sewage Sludge, and Scrap tires.
- \* Generate up to 51 megawatts (MW) of electricity/export approximately (45 MW for sale) – enough power for approximately 45,000 homes.
- \* Recover approximately 15,000 tons per year of scrap metals not otherwise recycled.







# Co-combustion of Dewatered Sewage Sludge



*Co-combustion of dewatered sewage sludge from the County's WWTP (which is adjacent to the WTE Site) will eliminate the need to construct egg shaped anaerobic digesters.*

- \* The WTE is designed and permitted so it can provide the County's Ballenger-McKinney WWTP with a stable long-term sludge disposal option, which will avoid the cost of constructing \$55,100,000 sludge processing system.\*



# State of the County 2013

## *Frederick County, Maryland*

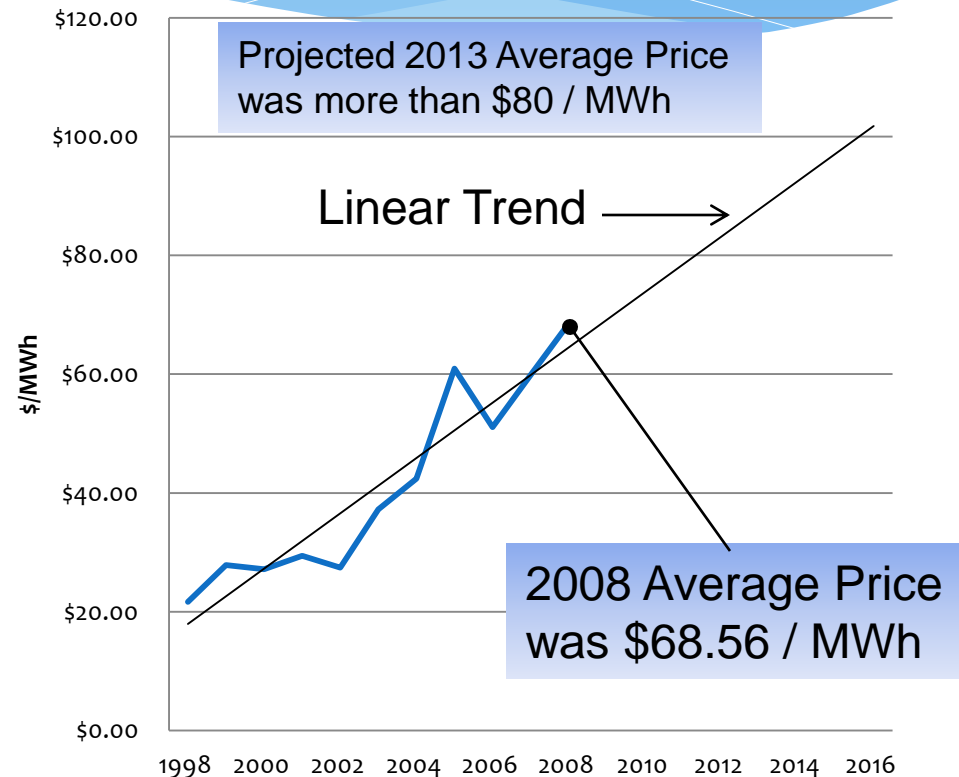
### WTE Project Cost Information

- Based on Current Construction Indexes & Interest Rates
- Fixed Construction Cost with SCR Pollution Control Technology - \$375,727,000, **Frederick County's share \$225,436,000**
- Total Revenue Bond Size (Based on Fixed Construction Cost Value and assuming financing 7/2014), Total project \$471,000,000, **Frederick County's share \$282,000,000**

# Project Challenges

Average PJM Western Hub, ATC  
Pricing \$/MWh 1998 thru 2008\*

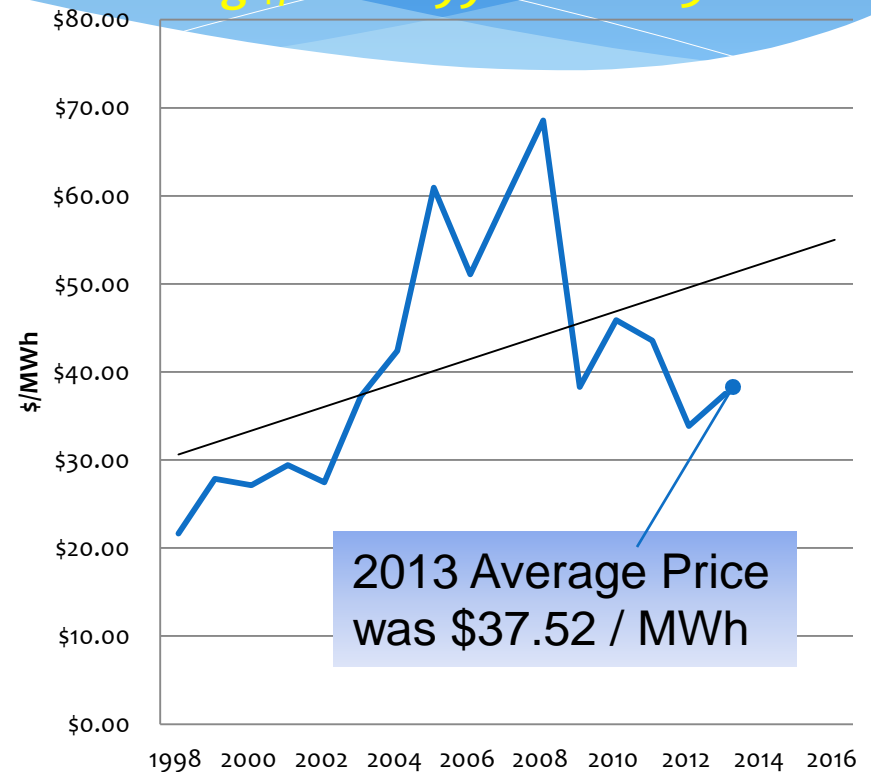
- \* Current energy (electricity) prices are now lower than 2008 prices when project financials were being developed.



# Project Challenges

Average PJM Western Hub, ATC Pricing \$/MWh 1998 thru 2013 \*

- \* Today's energy (electricity) prices (\$37.52 / MWh) are less than half the projected price for 2013 (which were over \$80/ MWh) when project permitting was originally anticipated to be completed.



# Project Challenges

- \* In addition to lower than anticipated electrical energy prices (values), the costs to dispose of waste in out of state landfills has remained low and stable since the NMWDA was able to renegotiate the terms of the waste Transportation and Disposal (T&D) contract in 2011. However, this T&D contract expires in less than 10 months. Therefore the County requested the NMWDA to conduct a new procurement for these services. The final result of which will be available in August.



# Project Challenges

- \* Carroll County has withdrawn from the project.
- \* The WTE facility cannot be reduced in size and still be competitive with the alternative: out-of-county waste transfer and disposal.
- \* Therefore a replacement for Carroll County needs to be secured for the project.

# Project Challenges

- \* Although all five of the required permits for the WTE facility were issued by the Maryland Department of the Environment (MDE), following a four year permitting period, on February 21, 2014, a petition for Judicial Review was received by the Frederick County Circuit Court on March 21, 2014, regarding MDE's issuance of the NPDES permit for the cooling water discharge to the Potomac River.

# Project Challenges

- \* The Potomac River Keepers Inc., the organization that is seeking this judicial review, are questioning whether MDE followed their regulations in issuing the wastewater discharge permit.
- \* How long this judicial review process will take is not currently known. However, until the review is completed (including any appeals) the WTE project will not proceed, even if a replacement for Carroll County is secured.

# Next Steps

- \* Find replacement for Carroll County
- \* Await Circuit Court decision on Potomac River Keepers Petition, then:
  - Update financial projections
  - Seek final decision from BOCC, and if approved:
    - NMWDA will finance project with Revenue Bonds
    - Construction Period is approximately 36 months
  - If not approved: Consider selecting proposal from recent RFP issued NMWDA for Short or Long-term waste disposal.

For More information:  
[NMWDA.org](http://NMWDA.org)

